



metalugy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 1/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

· Trade name: STANDART Aluminium powder

· MSDS number: ALFP

· CAS Number: 7429-90-5

· EC number: 231-072-3

· Index number: 013-002-00-1

**Application of the substance / the preparation**

Construction chemicals

Pigment

Printing inks

Paint

**1.2 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

METALUGY POWDER KHORASAN

iran – khorasan razavi – kharv – shahrak sanati khayam – bahrevarie 12

**Further information obtainable from:**

Tel. +98-51- 42628766

[info@khpmco.com](mailto:info@khpmco.com)

**1.3 Emergency telephone number:**

+98-51- 42628766

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

· Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Sol. 1 H228 Flammable solid.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 2/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 2: Hazards identification**



**Symbol(s) :** F : Highly flammable

**R Phrase(s) :** R11 : Highly flammable.

R15 : Contact with water liberates highly flammable gases.

**S Phrase(s) :** S2 : Keep out of the reach of children.

S7/8 : Keep container tightly closed and dry.

S43 : In case of fire, use .

**Contains :** Aluminium powder (stabilised)

**· Information concerning particular hazards for human and environment:**

R 10 Flammable.

R 15 Contact with water liberates extremely flammable gases.

**· Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

**· 2.2 Label elements**

**· Labelling according to Regulation (EC) No 1272/2008**

**Hazard pictograms**



**Signal words :** Danger

**Hazard statements :** H225 : Highly flammable liquid and vapour.

H260 : In contact with water releases flammable gases which may ignite spontaneously.

**Precautionary statements**

**· General :** P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

**· Prevention :** P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232: Handle under inert gas. Protect from moisture.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P233: Keep container tightly closed.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 3/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 2: Hazards identification**

- Response :** P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower  
P335+P334: Brush off loose particles from skin. Immerse in cool water, wrap in wetbandages.  
P370+P378 In case of fire: Use for extinction: Special powder for metal fires.  
P370+P378 In case of fire: Use for extinction: Dry sand..
- **Storage :** P402+P404: Store in a dry place. Store in a closed container.  
P403+P235: Store in well-ventilated place. Keep cool.
- **Disposal considerations :** P501: Dispose of this material and its container to hazardous or special wastecollection point, in accordance with local, regional, national and/or international regulation.
- **2.3 Other hazards** Risk of dust explosion.

**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterization: Substances**
- **CAS No. Description**  
7429-90-5 aluminium powder (stabilized)
- **Identification number(s)**
- **EC number:** 231-072-3 (aluminium powder, stabilized (phlegmatisiert))
- **Index number:** 013-002-00-1

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information:**  
Take affected persons out into the fresh air.  
Take affected persons out of danger area and lay down.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.



metalurgy powder khorasan

**Safety data sheet**  
*according to 1907/2006/EC, Article 31*

Page 4/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 4: First aid measures**

- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** Not expected to present a significant hazard under anticipated conditions of normal use.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
Use fire extinguishing methods suitable to surrounding conditions.  
Special powder for metal fires. Do not use water.  
Dry sand
- **For safety reasons unsuitable extinguishing agents:**  
Water  
Carbon dioxide  
ABC powder  
Foam
- **5.2 Special hazards arising from the substance or mixture**  
Contact with water liberates extremely flammable gas (hydrogen).
- **5.3. Advice for fire-fighters**  
**Protection against fire :** Do not enter fire area without proper protective equipment, including respiratory protection.
- **Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Avoid formation of dust.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 5/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 6: Accidental release measures**

Use special care to avoid static electric charges.

Keep away from ignition sources. No naked lights. No smoking.

· **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.

· **6.3 Methods and material for containment and cleaning up:**

Pick up mechanically.

Do not flush with water or aqueous cleansing agents

Do not use a vacuum cleaner.

· **6.4 Reference to other sections :** See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

**SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling**

Prevent formation of dust.

Protect from moisture. Keep away from any possible contact with water, because of violent reaction and possible flash fire.

Keep away from heat and direct sunlight.

Handle with care. Avoid jolting, friction and impact. Handle under inert gas

Any unavoidable deposit of dust must be regularly removed.

· **Information about fire - and explosion protection:**

Use intrinsically safe equipment/ non-sparking tools

Protect against electrostatic charges.

Earthing of containers and apparatuses is essential.

Dust can combine with air to form an explosive mixture.

Reaction with water liberates extremely flammable gas (hydrogen)

Keep ignition sources away - Do not smoke. No naked lights

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in cool, well ventilated, dry place in tightly closed receptacles.

Store only in the original receptacle.

Use only receptacles specifically permitted for this substance/product.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 6/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 7: Handling and storage**

**· Information about storage in one common storage facility:**

Store away from flammable substances.

Do not store together with oxidizing and acidic materials.

Do not store together with alkalis (caustic solutions).

**· Further information about storage conditions:**

Protect from humidity and water.

Keep container tightly sealed.

Caution when reopening receptacles with broken seal.

**SECTION 8: Exposure controls/personal protection**

**Additional information about design of technical facilities:** No further data; see item 7.

**· 8.1 Control parameters**

**· Ingredients with limit values that require monitoring at the workplace:**

**aluminium powder, stabilized (phlegmatisiert)**

OES Long-term value: 10\* 4\*\* mg/m<sup>3</sup>

\*total inhalable dust \*\*respirable dust

**· Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Do not eat, drink, smoke or sniff while working.

**· Respiratory protection:**

Use suitable breathing protection if workplace concentration requires.

Filter P1

**· Protection of hands:**

Leather gloves

Long cuffed gloves

**· Eye protection:** Face protection

**· Body protection:**

Anti-static and fire resistant protective clothing. EN 531; EN 533; EN 1149-1

Anti-static safety shoes.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 7/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 9: Physical and chemical properties**

**· 9.1 Information on basic physical and chemical properties**

**· General Information**

**· Appearance:**

**Form:** Powder  
**Colour:** Silver-coloured  
**· pH-value:** Not applicable.

**· Change in condition**

**Melting point/Melting range:** 660°C  
**Boiling point/Boiling range:** 2467°C  
**· Flammability (solid, gaseous):** Highly flammable.  
*Contact with water liberates extremely flammable gases*

**· Ignition temperature:**

> 400°C

**· Decomposition temperature:**

Not determined

**· Minimum ignition temperature test - dust layer** > 230°C

**· Danger of explosion:** The product is not hazardous in regard of explosions, however, may form explosive dust/air mixtures.

**· Explosion limits:**

**Lower:** 30 g/m<sup>3</sup>  
**Upper:** Not determined.  
**.minimum explosive concentration in air** 30 g/cu. m  
**.maximum explosion energy** 12 bar  
**.minimum oxygen level to allow ignition** 6%  
**· minimum ignition energy** 500 millijoules  
**· Density:** 0.27 g/cm<sup>3</sup>  
**· Solubility in / Miscibility with water:** Insoluble.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

**· 10.2 Chemical stability**

**· Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

No decomposition if used and stored according to specifications.

**· 10.3 Possibility of hazardous reactions**

Avoid dust clouds, they may form explosible dust-air-mixture.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 8/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 10: Stability and reactivity**

Reacts with halogenated compounds.

Reacts with alkalis, acids, halogenes and oxidizing agents.

Contact with acids and alkalis may release hydrogen.

Contact with water may release flammable gases.

Risk of dust explosion.

- **10.4 Conditions to avoid** Direct sunlight. Extremely high or low temperatures. Open flame.
- **10.5 Incompatible materials:** Strong acids. Strong bases..
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.  
Fumes. Carbon monoxide. Carbon dioxide. May release flammable gases

**SECTION 11: Toxicological information**

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**7429-90-5 aluminium powder (stabilized)**

Oral LD50 >2000 mg/kg (rat)

Inhalative LC50 888 mg/m<sup>3</sup> (rat)

**Primary irritant effect:**

There is not evidence that a specific health risk to the lungs or body are created by inhalation or ingestion. Contact with the body through inhalation, ingestion or in the eyes will cause discomfort. Aluminium dust is regarded as a nuisance dust only.

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Subacute to chronic toxicity:** No effects known

· **Additional toxicological information:** Above given information is based on long term experience.

**NOAEC**

**7429-90-5 aluminium powder (stabilized)**

Inhalative NOAEC 10 mg/m<sup>3</sup> (rat)

**SECTION 12: Ecological information**

**12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.





metalugy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 9/13

Printing date

06.11.2014

Revision

06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 12: Ecological information**

· **12.4 Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Generally not hazardous for water

**Environmental fate:**

There are no known adverse environmental effects associated with the use of this product. However care should be taken to limit the escape into the air or into drains and watercourses.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

**SECTION 13: Disposal considerations**

**.13.1. disposal ways**

**Surplus or contaminated Aluminium Powder can be disposed of in an number of ways:**

**Landfill:** Check packaging requirements and seek a specialist in this field.

**Incineration:** Check with the local authority and fire service for their advice.

**Re-cycling:** Check with supplier or non-ferrous recycler to determine suitability.

Packaging should be emptied / cleaned of all product and is then considered safe for skip disposal. . They may be recycled after thorough and proper cleaning

· **13.2 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations .Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations

· **Un cleaned packaging:**

· **Recommendation:**

Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.



metalurgy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 10/13  
Printing date  
06.11.2014  
Revision  
06.11.2014

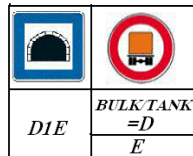
**Trade name: STANDART Aluminium powder**

**SECTION 14: Transport information**

**ADR - Class :** 4.3  
**Labelling - Transport :** 4.3 : Contact with water liberates highly flammable gases.



**ADR - Classification code :** W2  
W2  
**ADR - Group :** II  
**ADR - Packing instructions :** P410  
**ADR - Limited Quantity :** 500 G  
**ADR - Tunnel code:**



D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

**14.2. Sea transport (IMDG) [English only]**

**Proper shipping name :** ALUMINIUM POWDER, UNCOATED  
**UN N° :** 1396  
**IMO-IMDG - Class or division :** 4.3 : Contact with water liberates highly flammable gases.  
**IMO-IMDG - Packing group :** II  
**IMO- IMDG - Packing instructions :** P410  
**IMO-IMDG - Limited quantities :** 500 g  
**IMO-IMDG - Marine pollution :** No  
**EMS-Nr :** F-G S-O

**14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name :** ALUMINIUM POWDER, UNCOATED  
**UN N° :** 1396  
**IATA - Class or division :** 4.3 : Contact with water liberates highly flammable gases.  
**IATA - Packing group :** II  
**IATA - Passenger and Cargo Aircraft :** ALLOWED  
**- Passenger and Cargo - Packing :** 484

**instruction**

**- Passenger and Cargo - Maximum :** 15 kg



metalugy powder khorasan

## Safety data sheet according to 1907/2006/EC, Article 31

Page 11/13  
Printing date  
06.11.2014  
Revision  
06.11.2014

**Trade name: STANDART Aluminium powder**

### SECTION 14: Transport information

#### Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Maximum Quantity/ : 80 kg

#### Packing

IATA - Limited Quantities : 0.5 kg

### SECTION 15: Labelling and Packaging

#### .15.1 sample label product :

-iran – khorasan razavi -kharv– shahrak sanati khayam – bahrevare 12

Telefax : 051-42628766

E-mail : [info@khpmpco.com](mailto:info@khpmpco.com)



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## Aluminum powder



Signal word : Danger

Hazard statements :  
H228 Flammable solid.

#### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection

P370+P378 In case of fire: Use for extinction: Special powder for metal fires.

P370+P378 In case of fire: Use for extinction: Dry sand.

P102: Keep out of reach of children

P403: Store in a well-ventilated place

.CAS Number: 7429-90-5

· EC number: 231-072-3

· Index number: 013-002-00-1

Made in iran

Net weight :

Manufacturing data :

Shelf – life :

Batch code :

#### Description of first aid measures

· General information: Take affected persons out into the fresh air.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact: Immediately wash with water and soap and rinse t

· After eye contact: Rinse opened eye for several minutes under running water.

If symptoms persist, consult a doctor



metalugy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 12/13

Printing date  
06.11.2014

Revision  
06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 15: Labelling and Packaging**

**.15-.2. The requirements of label size:**

Capacity of the package	Dimensions of label /millimetres
≤ 3 litres	If possible at least 52 x 74
> 3 litres but ≤ 50 litres	At least 74 x 105
> 50 litres but ≤ 500 litres	At least 105 x 148
> 500 litres	At least 148 x 210

**SECTION 16: Regulatory information**

**· 16.1: Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

**· Code letter and hazard designation of product:**

F Highly flammable

**· Risk phrases:**

10 Flammable.

15 Contact with water liberates extremely flammable gases.

**· Safety phrases:**

7/8 Keep container tightly closed and dry.

43 In case of fire, use dry sand. Never use water.

**16.2. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

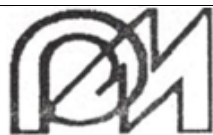
Ensure all national/local regulations are observed.

**REACH Restrictions - Annex XVII** : The components of this product are not subject to restrictions.

**REACH Authorisation - Annex XIV** : The components of this product are not subject to authorization.

**15.2. Chemical Safety Assessment**

**Chemical Safety Assessment** : It has not been carried out.



metalugy powder khorasan

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 13/13

Printing date  
06.11.2014

Revision  
06.11.2014

**Trade name: STANDART Aluminium powder**

**SECTION 17: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** O-SE-RA Regulatory Affairs

**Sources of key data used :**

. Safety instruction for handling and processing aluminum powder  
. labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC

. Recommendations for storage and handling of aluminum powders and paste

. A guide to Globally harmonized system of classification and labeling of chemicals(GHS)

4W

· **Contact:**

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**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division)

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